



#6

1/20

SEQUENCE LISTING

<110> Eckert, Deborah M.
Chan, David C.
Malashkevich, Vladimir
Carr, Peter A.
Kim, Peter S.

<120> Inhibitors of HIV Membrane Fusion

<130> 0399.1192-008

<140> US 09/746,724
<141> 2000-12-21

<150> PCT/US99/17351
<151> 1999-07-30

<150> US 60/043,280
<151> 1997-04-17

<150> US 09/062,241
<151> 1998-04-17

<150> US 60/094,676
<151> 1998-07-30

<150> US 60/100,265
<151> 1998-09-14

<150> US 60/101,058
<151> 1998-09-18

<150> US 60/132,295
<151> 1999-05-03

<160> 68

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> GCN4-PIQI

<400> 1
Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Leu Ser Lys Gln
1 5 10 15
Tyr His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile Gly Glu
20 25 30
Arg

<210> 2
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> IQN17

<400> 2
Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Glu Ser Lys Gln
1 5 10 15
Lys Lys Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Leu Gln Leu
20 25 30
Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu
35 40 45

<210> 3
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 3
Cys Asp Leu Lys Ala Lys Glu Trp Phe Trp Leu Cys
1 5 10

<210> 4
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 4
Cys Glu Ala Arg His Arg Glu Trp Ala Trp Leu Cys
1 5 10

<210> 5
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 5
Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp Leu Cys
1 5 10

<210> 6
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 6
Cys Leu Leu Arg Ala Pro Glu Trp Gly Trp Leu Cys
1 5 10

<210> 7
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 7
Cys Ser Arg Ser Gln Pro Glu Trp Glu Trp Leu Cys
1 5 10

<210> 8
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 8
Cys Gly Leu Gly Gln Glu Glu Trp Phe Trp Leu Cys
1 5 10

<210> 9
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 9
 Cys Met Arg Gly Glu Trp Glu Trp Ser Trp Leu Cys
 1 5 10

<210> 10
 <211> 12
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> D-peptide

<400> 10
 Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp Leu Cys
 1 5 10

<210> 11
 <211> 12
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> D-peptide

<400> 11
 Cys Val Leu Lys Ala Lys Glu Trp Phe Trp Leu Cys
 1 5 10

<210> 12
 <211> 11
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> D-peptide

<221> VARIANT
 <222> (1)...(11)
 <223> Xaa = Any Amino Acid

<400> 12
 Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu
 1 5 10

<210> 13
 <211> 35
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> N36

<400> 13
 Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu Gln
 1 5 10 15
 Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala
 20 25 30
 Arg Ile Leu
 35

<210> 14
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> C34

<400> 14
 Trp Met Glu Trp Asp Arg Glu Ile Asn Asn Tyr Thr Ser Leu Ile His
 1 5 10 15
 Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu
 20 25 30
 Leu Leu

<210> 15
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 15
 Lys Lys Gly Ala Cys Gly Leu Gly Gln Glu Glu Trp Phe Trp Leu Cys
 1 5 10 15

<210> 16
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 16
 Lys Lys Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp Leu Cys
 1 5 10 15

<210> 17
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 17
Lys Lys Lys Lys Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp
1 5 10 15
Leu Cys

<210> 18
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 18
Lys Lys Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp Leu Cys
1 5 10 15

<210> 19
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 19
Lys Lys Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp Leu Cys
1 5 10 15
Ala Ala

<210> 20
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HIV-1 Residues

<400> 20
Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile
1 5 10 15
Leu

<210> 21
<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> 24 Residues from the N- Terminal End of N26

<400> 21

Ser	Gly	Ile	Val	Gln	Gln	Gln	Asn	Asn	Leu	Leu	Arg	Ala	Ile	Glu	Ala
1				5					10				15		
Gln	Gln	His	Leu	Leu	Gln	Leu	Thr								
				20											

<210> 22

<211> 55

<212> PRT

<213> Artificial Sequence

<220>

<223> IQN24n

<400> 22

Met	Arg	Met	Lys	Gln	Ile	Glu	Asp	Lys	Ile	Glu	Glu	Ile	Glu	Ser	Lys
1				5				10				15			
Gln	Lys	Lys	Ile	Glu	Asn	Glu	Ile	Ala	Arg	Ile	Lys	Lys	Leu	Ile	Ser
	20					25				30					
Gly	Ile	Val	Gln	Gln	Gln	Asn	Asn	Leu	Leu	Arg	Ala	Ile	Glu	Ala	Gln
	35					40				45					
Gln	His	Leu	Leu	Gln	Leu	Thr									
	50					55									

<210> 23

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<221> VARIANT

<222> (1)....(4)

<223> Xaa = Any Amino Acid

<400> 23

Trp Xaa Trp Leu

1

<210> 24

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<221> VARIANT
 <222> (1) ... (5)
 <223> Xaa = Any Amino Acid

<400> 24
 Glu Trp Xaa Trp Leu
 1 5

<210> 25
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Soluble, Trimeric Version of the Coiled Coil
 Region fo GCN4 in IQN17

<400> 25
 Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Glu Ser Lys Gln
 1 5 10 15
 Lys Lys Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys
 20 25

<210> 26
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> HIV-2 Sequence

<400> 26
 Leu Leu Arg Leu Thr Val Trp Gly Thr Lys Asn Leu Gln Ala Arg Val
 1 5 10 15
 Thr

<210> 27
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> SIV Sequence

<400> 27
 Leu Leu Arg Leu Thr Val Trp Gly Thr Lys Asn Leu Gln Thr Arg Val
 1 5 10 15
 Thr

<210> 28
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(16)
<223> Xaa = Any Amino Acid

<400> 28
Xaa Xaa Cys Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Xaa Xaa
1 5 10 15

<210> 29
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(18)
<223> Xaa = Any Amino Acid

<400> 29
Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys
1 5 10 15
Xaa Xaa

<210> 30
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(20)
<223> Xaa = Any Amino Acid

<400> 30
Lys Lys Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Glu Trp Xaa Trp
1 5 10 15
Leu Cys Xaa Xaa
20

<210> 31
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(17)
<223> Xaa = Any Amino Acid

<400> 31
Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Xaa Xaa
1 5 10 15
Xaa

<210> 32
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(19)
<223> Xaa = Any Amino Acid

<400> 32
Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys
1 5 10 15
Xaa Xaa Xaa

<210> 33
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(21)
<223> Xaa = Any Amino Acid

<400> 33
Lys Lys Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Glu Trp Xaa Trp
1 5 10 15
Leu Cys Xaa Xaa Xaa
20

<210> 34
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 34
Gly Ala Cys Glu Ala Arg His Arg Glu Trp Ala Trp Leu Cys Ala Ala
1 5 10 15

<210> 35
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 35
Gly Ala Cys Asp Leu Lys Ala Lys Glu Trp Phe Trp Leu Cys Ala Ala
1 5 10 15

<210> 36
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 36
Gly Ala Cys Ser Arg Ser Gln Pro Glu Trp Glu Trp Leu Cys Ala Ala
1 5 10 15

<210> 37
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 37
Gly Ala Cys Leu Leu Arg Ala Pro Glu Trp Gly Trp Leu Cys Ala Ala
1 5 10 15

<210> 38
<211> 18
<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 38

Lys Lys Gly Ala Cys Glu Ala Arg His Arg Glu Trp Ala Trp Leu Cys
1 5 10 15
Ala Ala

<210> 39

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 39

Lys Lys Gly Ala Cys Asp Leu Lys Ala Lys Glu Trp Phe Trp Leu Cys
1 5 10 15
Ala Ala

<210> 40

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 40

Lys Lys Gly Ala Cys Ser Arg Ser Gln Pro Glu Trp Glu Trp Leu Cys
1 5 10 15
Ala Ala

<210> 41

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 41

Lys Lys Gly Ala Cys Leu Leu Arg Ala Pro Glu Trp Gly Trp Leu Cys
1 5 10 15
Ala Ala

<210> 42
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Invariant Residues in HIV-1, HIV-2 and SIV

<221> VARIANT
 <222> (1)...(17)
 <223> Xaa = Any Amino Acid

<400> 42
 Leu Leu Xaa Leu Thr Val Trp Gly Xaa Lys Xaa Leu Gln Xaa Arg Xaa
 1 5 10 15
 Xaa

<210> 43
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> D-peptide

<400> 43
 Lys Lys Lys Lys Gly Ala Cys Glu Ala Arg His Arg Glu Trp Ala Trp
 1 5 10 15
 Leu Cys Ala Ala
 20

<210> 44
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> D-peptide

<400> 44
 Gly Ala Cys Gly Leu Gly Gln Glu Glu Trp Phe Trp Leu Cys Ala Ala
 1 5 10 15

<210> 45
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> D-peptide

<400> 45
Lys Lys Lys Lys Gly Ala Cys Gly Leu Gly Gln Glu Glu Trp Phe Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 46
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 46
Lys Lys Lys Lys Gly Ala Cys Asp Leu Lys Ala Lys Glu Trp Phe Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 47
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 47
Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp Leu Cys Cys
1 5 10 15

<210> 48
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 48
Lys Lys Lys Lys Gly Ala Cys Ser Arg Ser Gln Pro Glu Trp Glu Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 49
<211> 20
<212> PRT
<213> Artificial Sequence

<220>

<223> D-peptide

<400> 49
Lys Lys Lys Lys Gly Ala Cys Leu Leu Arg Ala Pro Glu Trp Gly Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 50
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 50
Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp Leu Cys Ala Ala
1 5 10 15

<210> 51
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 51
Lys Lys Lys Lys Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 52
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 52
Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp Leu Cys Ala Ala
1 5 10 15

<210> 53
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 53
Lys Lys Lys Lys Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 54
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(16)
<223> Xaa = Any Amino Acid

<400> 54
Gly Ala Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Ala Ala
1 5 10 15

<210> 55
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(18)
<223> Xaa = Any Amino Acid

<400> 55
Lys Lys Gly Ala Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys
1 5 10 15
Ala Ala

<210> 56
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)....(20)
<223> Xaa = Any Amino Acid

<400> 56
Lys Lys Lys Lys Gly Ala Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 57
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)....(16)
<223> Xaa = Any Amino Acid

<400> 57
Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Xaa Xaa
1 5 10 15

<210> 58
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)....(18)
<223> Xaa = Any Amino Acid

<400> 58
Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys
1 5 10 15
Xaa Xaa

<210> 59
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1) ... (20)
<223> Xaa = Any Amino Acid

<400> 59
Lys Lys Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Glu Trp Xaa Trp
1 5 10 15
Leu Cys Xaa Xaa
20

<210> 60
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1) ... (17)
<223> Xaa = Any Amino Acid

<400> 60
Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Xaa Xaa
1 5 10 15
Xaa

<210> 61
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1) ... (19)
<223> Xaa = Any Amino Acid

<400> 61
Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys
1 5 10 15
Xaa Xaa Xaa

<210> 62
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<221> VARIANT
<222> (1)...(21)
<223> Xaa = Any Amino Acid

<400> 62
Lys Lys Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp
1 5 10 15
Leu Cys Xaa Xaa Xaa
20

<210> 63
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Sequence Pattern in C-Terminal Residues in
D-peptides

<221> VARIANT
<222> (1)...(12)
<223> Xaa = Any Amino Acid

```

<400> 63
Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys
      1           5           10

```

<210> 64
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 64
Lys Lys Gly Ala Cys Gly Leu Gly Gln Glu Glu Trp Phe Trp Leu Cys
1 5 10 15
Ala Ala

<210> 65
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 65
Lys Lys Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp Leu Cys
1 5 10 15
Ala Ala

<210> 66
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 66
Lys Lys Lys Lys Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp
1 5 10 15
Leu Cys Ala Ala
20

<210> 67
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 67
Lys Lys Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp Leu Cys
1 5 10 15
Ala Ala

<210> 68
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> D-peptide

<400> 68
Lys Lys Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp Leu Cys
1 5 10 15
Ala Ala